REMARKS

Status of the Claims

(Currently Amended) - Claims 1-8, 10-14, 16-20, 25-29, 31, 33-36, 39, 42, 43, 45-50, 52-54, 56, 59, 60, 63-67, 70-85, and 87-91

(Canceled) - Claims 9, 15, 21-24, 30, 32, 37, 38, 40, 41, 44, 51, 55, 57, 58, 61, 62, 68, 69, and 86

Double Patenting Rejection

The Examiner has rejected the pending claims of the present application on the grounds of nonstatutory double patenting. Applicant has filed with this response a terminal disclaimer in compliance with 37 CFR 1.321(c) to overcome the Examiner's rejections.

Claim Rejections Under 35 U.S.C. § 101

The Examiner has rejected the pending claims of the present application under 35 U.S.C. § 101 because the claimed invention is believed to be directed to nonstatutory subject matter. Specifically, the Examiner states that the language of the claims raises a question as to whether the claimed invention is directed merely to an abstract idea that is not tied to a technological art, environment, or machine which would result in a practical application producing a concrete, useful, and tangible result.

Applicant has amended the pending claims of the present application to indicate clearly that the invention is a computerized system and method for exploring a decision space with a plurality of software processes to provide the seeker, filter, and viewer

features and functionality. Applicant respectfully submits that the amended claims, as well as Applicant's specification, indicate clearly that the present invention is tied to a technological machine that produces a concrete, useful, and tangible result and therefore, is directed to statutory subject matter under 35 U.S.C. § 101. Applicant respectfully submits the amended claims overcome the Examiner's rejections.

Claim Rejections Under 35 U.S.C. § 102

The Examiner has rejected claims 1-8, 10-14, 16-20, 25-29, 31, 33-36, 39, 42, 43, 45-50, 52-54, 56, 59, 60, 63-67, 70-85, and 87-91 as being anticipated by Amado. It is the Examiner's position Amado discloses a seeker for providing a plurality of evaluated candidates, a filter for selecting a subset of candidates from a plurality of candidates by excluding from the subset of evaluated candidates each candidate that is inferior to other candidates, and a viewer for displaying a subset of evaluated candidates. Applicant has amended claims 1, 18, 36, 54, and 89 to indicate that candidates according to the present invention are alternatives within a decision space. Previously, Applicant amended claims 1, 18, 36, 72, and 89 to indicate that the filter of the present invention compares each candidate in the decision space to other candidates to exclude inferior candidates so that the remaining candidates represent tradeoffs within the decision space. The viewer allows a computer user to examine the tradeoffs and select the candidate or candidates that have the attributes that the user considers to be the most important. In view of Applicant's amended claims, Applicant respectfully traverses the rejections.

Amado teaches an executive information system for analyzing data to assist an executive with the management of business such as a fast-food branch, gas station, smaller rural institution, etc. (Col. 21, ll. 1-23). The Amado invention is designed to interpret large volumes of data (Col. 24, ll. 10-13) and more importantly, to learn based on a user's input and interaction with the system and apparent priorities (Col. 21, ll.50-55). It uses data such as sales data, profit data, etc. from many different sources to generate a diagnostics database. Various formulas are applied to the data in order to generate the diagnostics which are tied to the original data. A user is permitted to query the diagnostics and then act upon them.

Diagnostics in Amado relate to advisories or warnings that are likely to be of interest to an executive. In one example, financial data is analyzed to generate diagnostics. The diagnostics relate to the data analysis performed by the system and include such statements as "the companies debt is too large" (Col. 32, ll. 22-26), "the customer service department is falling behind" (Col. 33, ll. 22-25), and there is a simultaneous downturn in sales and profits for five products (Col. 43, ll. 40-45).

Applicant respectfully submits that Amado's invention for issuing advisories and warnings to executives about the status of a business is completely unrelated to Applicant's invention for exploring a decision space. Applicant's invention assists a computer user with making decisions about a potentially large number of alternatives that are available to the user. A "candidate" in Applicant's invention is an alternative within the decision space. As indicated in Applicant's specification, candidates may be designs for a car. Each car design may be examined according to performance criteria such as top speed, mileage, and weight. Another example of a decision space

according to Applicant's invention is investment alternatives that are examined based on capitalization-value, mean-historic-monthly return, variance-of-return, and price-earnings-ratio. As with car designs or any set of alternatives, each investment may be examined according to various performance criteria.

Applicant's invention reduces the size of a decision space by applying dominance filtering to candidates. As Applicant explained in a prior response, filtering according to the present invention is comparison-based and produces from a potentially very large set of possible alternatives only those alternatives that represent "trade-offs." After a filter is applied, none of the remaining candidates are superior to the others in every respect. The user can then examine the remaining candidates in the viewer to determine which candidate or candidates have the attributes that the user considers to be the most important.

Applicant respectfully submits that Amado addresses a problem that is unrelated to exploring a decision space and therefore, does not teach or even suggest generating, producing, or acquiring candidates that are alternatives in a decision space, and more importantly, does not teach or even suggest applying dominance filtering to candidates to exclude inferior candidates from a set of alternatives. Applicant's amended claims 1, 18, 36, 54, 72, and 89 specifically state that candidates are generated, produced, or acquired, that they are filtered to exclude inferior candidates, and that the remaining candidates may be examined in scatterplots. Applicant respectfully submits therefore, that the Amado reference cannot support the present rejections.

The Examiner has referenced specific passages of Amado to reject the claims of the present application. Applicant respectfully submits that the cited passages do not

disclose the teachings asserted by the Examiner and therefore, cannot support the present rejections for the following reasons.

It is the Examiner's position Amado discloses "candidates" in Col. 10, ll. 14-34. The cited passage states only that the KADS tool generates specifications of applications for decision-making systems and that complex activities can be analyzed. Applicant respectfully submits there is no statement or teaching related in any way to a plurality of candidates that are alternatives in a decision space.

It is the Examiner's position Amado discloses "candidates" in Col. 16, ll. 20-29. The cited passage states only that the Esteem™ knowledge extraction tool may be used to build decision making and problem solving applications which use reasoning on prior experience. The passage further includes some programming details. Applicant respectfully submits there is no statement or teaching related in any way to a plurality of candidates that are alternatives in a decision space.

It is the Examiner's position Amado discloses "candidates" in Col. 31, ll. 14-26. The cited passage states only that there is a test database with test descriptions, formulas data tables, data items with identifiers identifying the set of items to which tests will be applied, and triggers data table where each test is associated with a set of triggers. The triggers produce an action. Applicant respectfully submits that data items as described by Amado are not candidates and that there is no statement or teaching in this passage that is related in any way to a plurality of candidates that are alternatives in a decision space.

It is the Examiner's position Amado discloses a filter for excluding inferior candidates in Col. 6, ll. 5-37. The cited passage states only that fuzzy systems are

different from probability and gives an example. Applicant respectfully submits there is

no statement or teaching related in any way to a plurality of candidates that are filtered

to exclude inferior candidates.

It is the Examiner's position Amado discloses a filter for excluding inferior

candidates in Col. 31, ll. 14-26. The cited passage describes a test database with test

descriptions, formulas data tables, data items with identifiers identifying the set of items

to which tests will be applied, and triggers data table where each test is associated with

a set of triggers. The triggers produce an action. The cited passage further describes a

tests-processing engine for interpreting if-then-else statements and triggers for

producing diagnostic statements. As argued above, diagnostics according to Amado

are advisory messages or warnings to executives and are completely unrelated to

candidates in a decision space. Applicant respectfully submits there is no statement or

teaching related in any way to candidates that are filtered to exclude inferior candidates.

It is the Examiner's position Amado discloses a viewer in Col. 2, ll. 13-19. The

cited passage states only that the Corporate Vision™ decision support tool is a

spreadsheet program that helps user visually analyze facts and graphically see

corporate data. Data is merged from several sources and filtered. Key information is

extracted and may be displayed in 3D graphics, tables, and hypertext. Applicant

respectfully submits there is no statement or teaching related in any way to a viewer for

examining in scatterplots candidates that are tradeoffs in a decision space.

It is the Examiner's position Amado discloses a viewer in Col. 16, ll. 57-65. The

cited passage describes Database Visualization Tool™ knowledge extraction tool that

evaluates data and suggests graph types that best illustrate the database a variety of

graphical types are supported. However, there is no mention of scatterplots. Applicant respectfully submits there is no statement or teaching related in any way to a viewer for examining in scatterplots candidates that are tradeoffs in a decision space.

It is the Examiner's position Amado discloses a viewer in Col. 31, ll. 38-42. The cited passage states only that a querying engine is capable of sorting, filtering, linking, and showing synchronized database browse views of a database according to user preferences. Applicant respectfully submits there is no statement or teaching related in any way to a viewer for examining candidates that are tradeoffs in a decision space.

Applicant respectfully submits that Amado neither teaches nor even suggests any of the limitations in the pending claims related to a plurality of candidates that are alternatives in a decision space, filtering of the candidates to exclude inferior candidates, or a viewer that allows filtered candidates to be examined in scatterplots. The teachings of the Amado reference are completely unrelated to exploration of a decision space and therefore, the cited reference cannot support the present rejections.

Conclusion

Applicant respectfully submits that the Amado reference fails to teach a system or method for exploring a decision space comprising a plurality of candidates wherein each candidate is an alternative within the decision space, a filter for excluding inferior candidates from the plurality of candidates, and a viewer for examining the filtered candidates which represent tradeoffs within the decision space. In view of the foregoing claim amendments and accompanying remarks, the Applicant respectfully submits that the present application is properly in condition for allowance.

Applicant has submitted with this response an Applicant Initiated Interview Request Form (PTOL-413A) for the purpose of scheduling an interview with the Examiner to discuss the present application. The interview is scheduled for November 17, 2004 at 2:00 PM.

Respectfully submitted,

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